



AUDIOVOX
ELECTRONICS CORP.

VATS / PASSLOCK / TRANSPONDER Universal Alarm Bypass Module Model #ASPASSIII

This module lets you bypass virtually any type of vehicle factory anti-theft system on the market today to remotely start your vehicle without permanently disabling the vehicle factory theft system.

In 1985, General Motors came out with their first Vehicle Anti Theft System known as VATS which uses a resistor pellet in the key. Since this time, other manufacturers have been following suit with their own versions. Most use some form of a resistor in the key. Others use a transponder -- a small device in the key which can communicate a high security code to the vehicle upon demand.

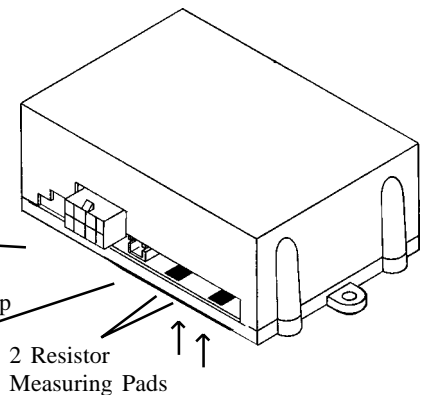
Contents:

- 1 VATS/Passlock/Transponder module
- 1 8 position wire harness
- 1 Transponder loop w/connector
- 2 Cable Ties
- 1 Instruction booklet
- 2 Double-stick foam tape

FRONT VIEW

8 position harness connector

Transponder Loop connector

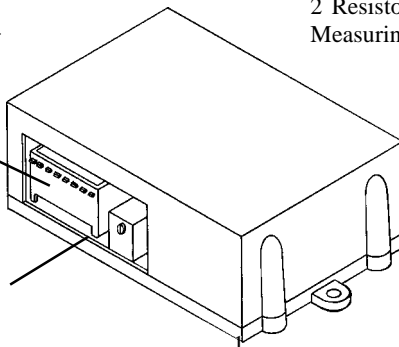


2 Resistor Measuring Pads

BACK VIEW

8 position dip-switch

Variable Resistor



List of vehicles and the types of security systems:

Acura 3.2TL 98+	Transponder	Ford Windstar 2000+	P.A.T.S.
Acura CL All	Transponder	GMC Denali 99+	Passlock 2
Acura RL 98+	Transponder	GMC Envoy 99+	Passlock 2
Acura Integra 2000+	Transponder	GMC S-15 Jimmy 98+	Passlock 2
Acura NSX 98+	Transponder	GMC Safari 98+	Passlock 2
Audi A4, A6, A8 98+	Transponder	GMC Sierra Pickup 98+	Passlock 2
BMW (all 97+)	Transponder	GMC Sonoma 98+	Passlock 2
Buick Century 97+	VATS	GMC Suburban 98+	Passlock 2
Buick LeSabre 90 – 96, 2000	VATS	GMC Yukon 98+	Passlock 2
Buick Park Ave 91 - 96	VATS	GMC Yukon XL 2000	Passlock 2
Buick Park Ave 97+	Transponder	Honda Accord 98+	Transponder
Buick Regal 93 -96	VATS	Honda Odyssey 98+	Transponder
Buick Riviera 93 -96	VATS	Honda Prelude 98+	Transponder
Buick Roadmaster 93 - 96	VATS	Honda S2000	Transponder
Buick Skylark 96 - 98	Passlock	Infinity I30 98+	Transponder
Cadillac Allante	VATS	Infinity Q45 98+	Transponder
Cadillac Brougham	VATS	Infinity QX4	Transponder
Cadillac Catera	Transponder	Jaguar (all 98+)	Transponder
Cadillac DeVille 92+	VATS	Jeep Grand Cherokee 99+	Transponder
Cadillac DeVille 00+	Transponder	Jeep TJ (Wrangler) 99+	Transponder
Cadillac Eldorado 89 - 98	VATS	Lexus (all 97+)	Transponder
Cadillac Eldorado 99+	Passkey 3	Lincoln Continental 97+	P.A.T.S.
Cadillac Escalade 99+	Passlock 2	Lincoln LS 2000+	P.A.T.S.
Cadillac Fleetwood 90 - 96	VATS	Lincoln Mark V3 97+	P.A.T.S.
Cadillac Seville 90 - 98	VATS	Lincoln Navigator 97+	P.A.T.S.
Cadillac Seville 99+	Passkey 3	Lincoln Town Car 97+	P.A.T.S.
Cadillac SLS/STS 97+	Passkey 3	Mercedes (all 97+)	Transponder
Chevy Astro Van 98+	Passlock 2	Mercury Cougar 99+	P.A.T.S.
Chevy Blazer 98+	Passlock 2	Mercury Mountaineer 98+	P.A.T.S.
Chevy Camaro 86+	VATS	Mercury Mystique 97+	P.A.T.S.
Chevy Cavalier 96-99	Passlock	Mercury Sable 96+	P.A.T.S.
Chevy Cavalier 2000	Passlock 2	Nissan Maxima 98+	Transponder
Chevy Corvette 88+	VATS	Oldsmobile Achieva 95+	Passlock
Chevy Express 97+	Passlock 2	Oldsmobile Alero 99+	Passlock 2
Chevy Impala 2000	Passkey 3	Oldsmobile Aurora	VATS
Chevy Lumina 96+	VATS	Oldsmobile Bravada 98	Passlock 2
Chevy Malibu 97+	Passlock 2	Oldsmobile Cutlass 97+	Passlock 2
Chevy Monte Carlo 96 - 99	VATS	Oldsmobile Eighty-Eight	VATS
Chevy Monte Carlo 2000	Passlock 2	Oldsmobile Intrigue 98+	Passlock 2
Chevy Pickup Full-size 98+	Passlock 2	Oldsmobile Ninety-Eight	VATS
Chevy S-10 98+	Passlock 2	Oldsmobile Silhouette 99+	Passkey 3
Chevy Savannah	Passlock 2	Pontiac Bonneville 89+	VATS
Chevy Suburban 98+	Passlock 2	Pontiac Firebird 88+	VATS
Chevy Tahoe 98+	Passlock 2	Pontiac Grand Am 96 - 98	Passlock
Chevy Van 98+	Passlock 2	Pontiac Grand Am 99+	Passlock 2
Chevy Venture 99+	Passkey 3	Pontiac Grand Prix 92 – 96	VATS
Chrysler Concorde 98+	Transponder	Pontiac Montana 99	Passkey 3
Chrysler LHS 99+	Transponder	Pontiac Sunfire 96-99	Passlock
Chrysler Sebring Conv 98+	Transponder	Pontiac Sunfire 2000	Passlock 2
Dodge 300 M 99+	Transponder	Porsche (most 97+)	Transponder
Dodge Intrepid 98+	Transponder	Saab (all 97+)	Transponder
Dodge Neon 2000	Transponder	Saturn 97+	Factory
Ford Contour 97 +	P.A.T.S.	Saturn 2000	Passkey 3
Ford Crown Vict. 98+ (optional)	Transponder	Toyota Avalon 98+	Transponder
Ford Excursion 2000	P.A.T.S.	Toyota Camry 98+	Transponder
Ford Expedition 97+	P.A.T.S.	Toyota Land Cruiser 98+	Transponder
Ford Explorer 98+	P.A.T.S.	Toyota Solara 99+	Transponder
Ford Focus 2000	Sécurlock	Toyota Supra 98+	Transponder
Ford Mustang 98+	P.A.T.S.	Volkswagon Beetle 98+	Transponder
Ford Pickup (F150/F250) 98+	P.A.T.S.	Volkswagon Golf 98+	Transponder
Ford Ranger 99+ (optional)	P.A.T.S.	Volkswagon Passat 98+	Transponder
Ford Taurus 96 +	P.A.T.S.	Volvo (all 98+)	Transponder

Determine which type system you have in your vehicle. If unsure -- follow the chart on the previous page to determine the system you have. There are several types of systems as outlined below:

General Motors **VATS** and **PASSLOCK I** and **PASSLOCK II** theft systems. For these, you will be required to dial-in a resistor value which matches the one on your security system. The method is described on the following pages for each type system using the dip switches and the variable resistor. The variable resistor is a 10 turn potentiometer which can be dialed up from zero ohms to 1,000 ohms.

SATURN vehicles simply hook up to the Universal Alarm Bypass Module as shown on page 9.

TRANSPONDER systems require a transponder (or extra key) to be used with our system. Follow the directions on page 10 and 11.

Use this chart with VATS, PASSLOCK I and PASSLOCK II.

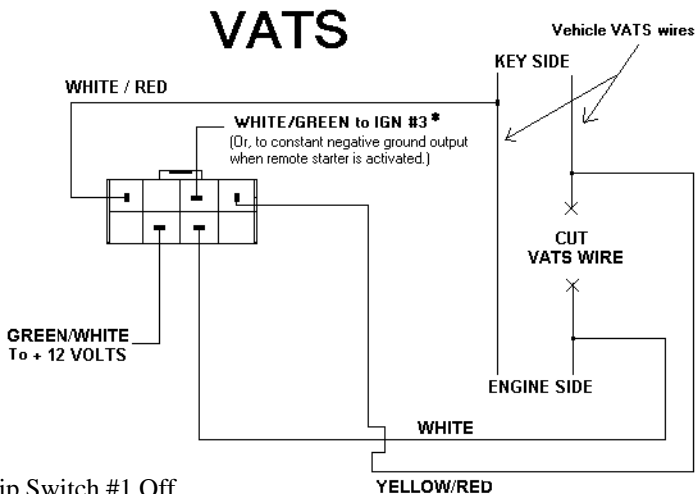
Dip Switch #	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	Final Resistance (k ohms)
Resistor Value	0.825	1.65	3.32	6.65	13.3	
	ON	ON	ON	ON	ON	0.000 +Trimpot Value
	OFF	ON	ON	ON	ON	0.825 +Trimpot Value
	ON	OFF	ON	ON	ON	1.650 +Trimpot Value
	OFF	OFF	ON	ON	ON	2.475 +Trimpot Value
	ON	ON	OFF	ON	ON	3.320 +Trimpot Value
	OFF	ON	OFF	ON	ON	4.145 +Trimpot Value
	ON	OFF	OFF	ON	ON	4.970 +Trimpot Value
	OFF	OFF	OFF	ON	ON	5.795 +Trimpot Value
	ON	ON	ON	OFF	ON	6.650 +Trimpot Value
	OFF	ON	ON	OFF	ON	7.475 +Trimpot Value
	ON	OFF	ON	OFF	ON	8.300 +Trimpot Value
	OFF	OFF	ON	OFF	ON	9.125 +Trimpot Value
	ON	ON	OFF	OFF	ON	9.970 +Trimpot Value
	OFF	ON	OFF	OFF	ON	10.795 +Trimpot Value
	ON	OFF	OFF	OFF	ON	11.620 +Trimpot Value
	OFF	OFF	OFF	OFF	ON	12.445 +Trimpot Value
	ON	ON	ON	ON	OFF	13.300 +Trimpot Value
	OFF	ON	ON	ON	OFF	14.125 +Trimpot Value
	ON	OFF	ON	ON	OFF	14.950 +Trimpot Value
	OFF	OFF	ON	ON	OFF	15.775 +Trimpot Value
	ON	ON	OFF	ON	OFF	16.620 +Trimpot Value
	OFF	ON	OFF	ON	OFF	17.445 +Trimpot Value
	ON	OFF	OFF	ON	OFF	18.270 +Trimpot Value
	OFF	OFF	OFF	ON	OFF	19.095 +Trimpot Value
	ON	ON	ON	OFF	OFF	19.950 +Trimpot Value
	OFF	ON	ON	OFF	OFF	20.775 +Trimpot Value
	ON	OFF	ON	OFF	OFF	21.600 +Trimpot Value
	OFF	OFF	ON	OFF	OFF	22.425 +Trimpot Value
	ON	ON	OFF	OFF	OFF	23.270 +Trimpot Value
	OFF	ON	OFF	OFF	OFF	24.095 +Trimpot Value
	ON	OFF	OFF	OFF	OFF	24.920 +Trimpot Value
	OFF	OFF	OFF	OFF	OFF	25.745 +Trimpot Value

All resistor values shown are in ‘K-ohms’ -- or 1,000 ohms. Thus the 1.650 value shown in the third row is 1,650 ohms or 1.65 K ohms.

	<u>DipSwitch #1</u>	<u>Dip Switch #7</u>	<u>Dip Switch #8</u>
VATS	OFF	OFF	OFF
PASSLOCK I	ON	ON	OFF
PASSLOCK II	OFF	OFF	OFF

VATS: Key can be identified by silver bar in the middle

1. Measure the resistance of the key. It should be between 392 ohms and 11,800 ohms. To do this, put the ohm meter probes on each side of the key pellet. This value should be close to one of the following (all values in ohms): 392, 523, 681, 887, 1.13K, 1.47K, 1.87K, 3.01K, 3.74K, 4.75K, 6.04K, 7.5K, 9.53K, 11.8K.
2. Locate the closest value which is less than your desired value. Set dip-switches 2 through 6 to match the chart on page 4.
3. Put your ohm meter (multi-meter) probes on the two silver resistance measuring pads through the opening shown in the drawing -- making good contact with these two silver pads on the board. (See drawing on page 1). Or put your two probes into the two holes on the bottom of the case making contact with the underside of the silver pads. Either contact point method will work.
4. With the probes held firmly -- dial-in the final resistance value needed for your system by turning the screw on the variable resistor on the side of the unit next to the dip switches. Turn the screw until the resistance value matches the resistance value of the key.
5. Locate the pair of VATS wires (sometimes **White/Black** striped and **Purple/Black** striped). These wires are often in a plastic tube. Be careful not to cut into the Yellow Air Bag wires! The Air Bag wires are often in a yellow plastic tube that is clearly marked. The VATS wires run from the ignition switch down the column under the dash. Connect the Universal Alarm Bypass Module using the diagram below.

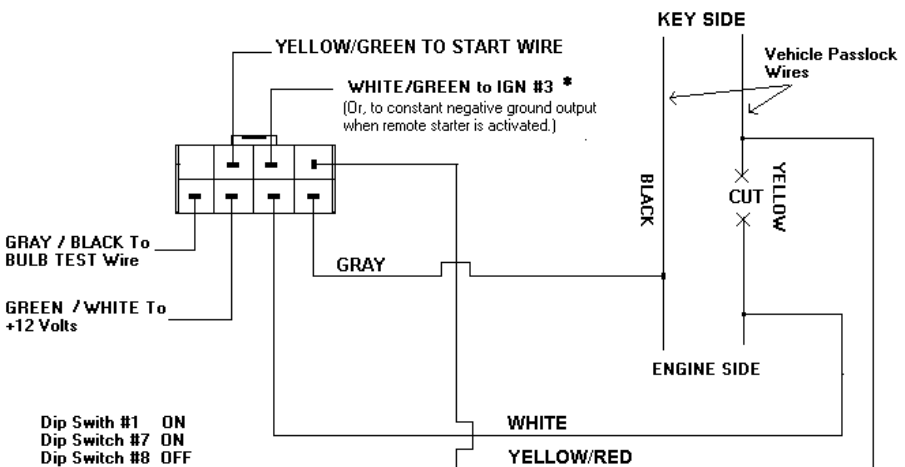


Dip Switch #1 Off
Dip Switch #7 Off
Dip Switch #8 Off

*See page 12 if you do not have an IGN3 wire

PASSLOCK I:

1. Remove the bottom half of the steering column shroud.
2. Locate the small three wire harness (with **White**, **Black** and **Yellow** wires) running down from the ignition key cylinder on the top right hand side of the steering column into the instrument panel. These wires are usually the smallest wires in the harness.
3. Cut the **Yellow** wire in half and strip back both end. Remove some of the insulation on the **Black** wire without cutting the wire. The **White** wire is not used.
4. Put the vehicle into reverse then turn the ignition key to the Start position and release it to the run position. The vehicle will not start since you are not in Park - but be sure to have your foot on the brake for safety.
5. With the ignition key still in and turned to the “**RUN**” position, measure the resistance between the key side of the **Yellow** wire and the **Black** wire. Make several measurements to verify that you have a consistent resistance. Reverse your test leads around, to verify that you get the same readings. If you get two different readings -- we have found that the higher of the two readings is the correct resistance - but check again.
6. When you have identified the correct resistance use the chart on page 4 to set the resistance on the bypass module.
7. Locate the **Black** “Bulb Test” wire on the left side of the steering column in cavity “D” or “E” of the Black 5-way connector, just above the main ignition switch connector. This is a different wire than the **Black** wire mentioned in the above steps.
8. Connect the Bypass module using the diagram below. Be sure to tape over any connections to not leave any exposed wires.

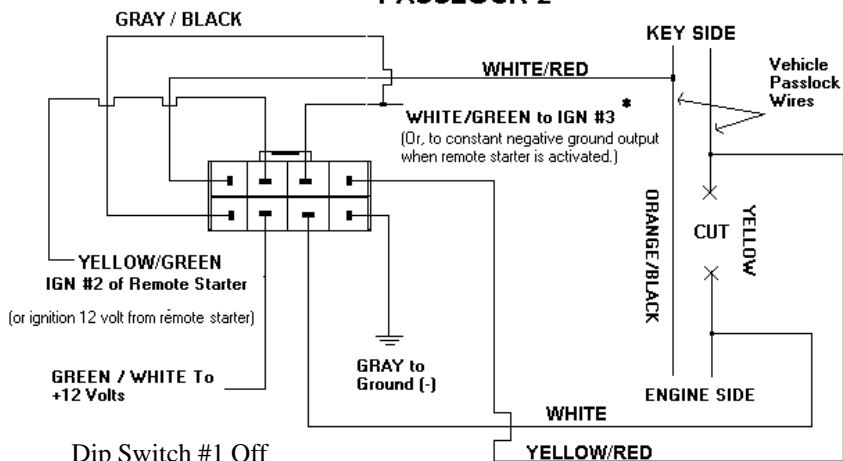


*See page 12 if you do not have an IGN3 wire

PASSLOCK II:

1. Remove the bottom half of the steering column shroud.
2. Locate the small three wire harness (with **Red/White**, **Yellow** and **Orange/Black** wires) running down from the ignition key cylinder on the top right hand side of the steering column into the instrument panel. These wires are usually the smallest wires in the harness.
3. Cut the **Yellow** wire in half and strip back both ends. Remove the insulation on the **Orange/Black** wire without cutting the wire. The **Red/White** wire is not used.
4. Turn the key to the "Run" position and place the vehicle in Reverse.
5. Turn the key to start, then release the key to the "Run" position and measure the resistance between the key side of the **Yellow** wire and the **Orange/Black** wire. (The vehicle will not start since you are not in Park - but be sure to have your foot on the brake for safety.) Reverse your test leads around, to verify that you get the same readings. If you get two different readings -- we have found that the higher of the two readings is the correct resistance - but check again.
6. When you have identified the correct resistance use the chart on page 4 to set the resistance on the bypass module. Locate the closest value which is less than your desired value. Set dip-switches 2 through 6 to match the chart on page 4.
7. Put your ohm meter (multi-meter) probes on the two silver resistance measuring pads through the opening shown in the drawing -- making good contact with these two silver pads on the board. (See drawing on page 1). Or put your two probes into the two holes on the bottom of the case making contact with the underside of the silver pads. Either contact point method will work.
8. With the probes held firmly -- dial-in the final resistance value needed for your system by turning the screw on the variable resistor on the side of the unit next to the dip switches. Turn the screw until the resistance value matches the resistance value of the key.
9. Connect the bypass module using the diagram on the next page. Be sure to tape over any connections to not leave any exposed wires.

PASSLOCK 2



Dip Switch #1 Off
Dip Switch #7 Off
Dip Switch #8 Off

*See page 12 if you do not have an IGN3 wire

Alternate Method of Measuring for Passlock 1 & 2

The Passlock system has three very small gauge wires that carry data from the ignition lock cylinder to the Passlock I & II module in the vehicle:

One wire will measure 0 volts with the key in the "Run" position. This wire is either Black (cars) or Orange/Black (SUV's, Trucks, Vans). We'll call this wire number # 1.

Another wire will measure somewhere between 0 and 5 volts with the key in the "Run" position. This wire is almost always Yellow. We'll call this wire number # 2.

The last wire will measure +12 volts with the key in the "Run" position. This wire is usually White (cars) and always Red/White (SUV's, Trucks, Vans). We'll call this wire number # 3.

With all Passlock wires intact, turn the ignition key to the "Run" position and place the vehicle into Reverse. Measure the voltage between wires # 1 and # 2. **RECORD THIS VOLTAGE.**

Without tuning the key off, cut in two wire # 2 and separate them (use caution as the Yellow wire will have live voltage on it). Connect the Universal Bypass Module as described in the installation manual, with one exception. Ground the wire(s) that go to Ignition # 3 on the remote starter (White/Black wire on same connector as the brake and hood pin wires). When this wire is connected, the bypass module should click on.

Now measure the voltage between the Engine side of wire #2 and wire #1. Play with the dip switches and trim pot on the bypass module until the voltage being measured matches EXACTLY the recorded reading from step # 1.

Remove the ground from the wire(s) on the bypass module that were to be connected to Ignition # 3 on the remote starter. The reading should not change. Reapply the ground to verify and if you get the same voltage both ways, then the module is setup perfectly.

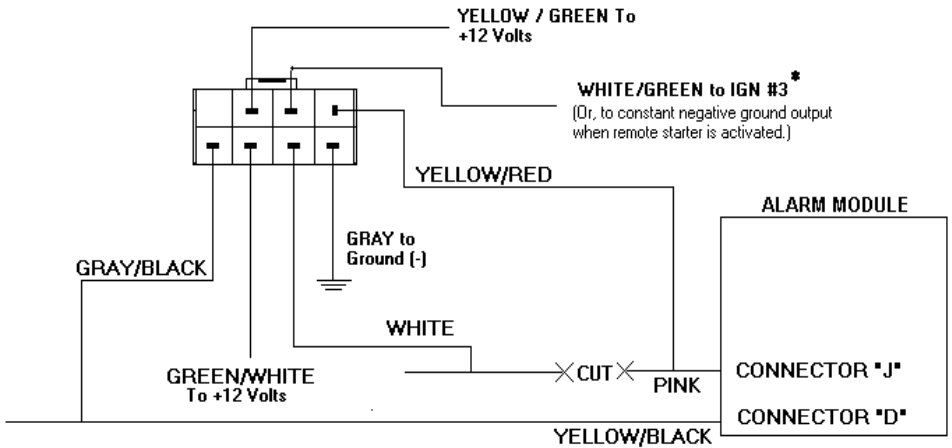
There is no chart to help you with this. It is all trial and error, but it will work no matter what brand of meter you are using.

SATURN:

The new Saturn vehicles with factory keyless have a unique bypass.

1. Locate the Alarm Module behind the right rear quarter trim panel (trunk area). Connect the Pink and Yellow/Black wires of Connector J and D of the alarm module as shown.
2. Cut the Pink wire in half and connect as shown.
3. Turn all dip switches OFF.

SATURN ALARM BYPASS



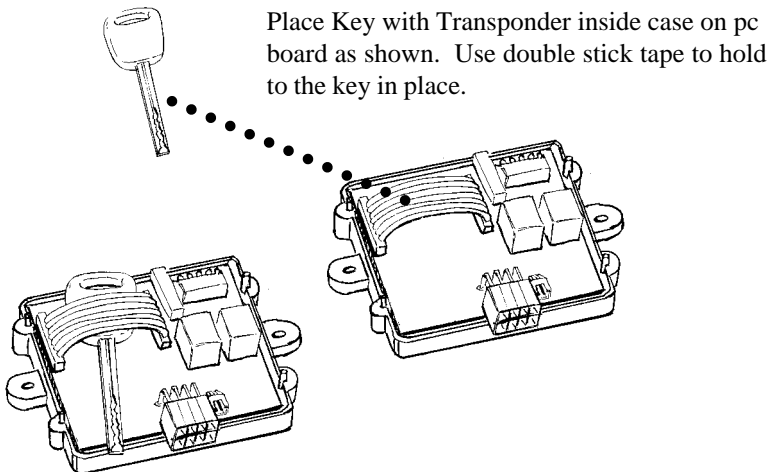
All Dip Switches OFF

*See page 12 if you do not have an IGN3 wire

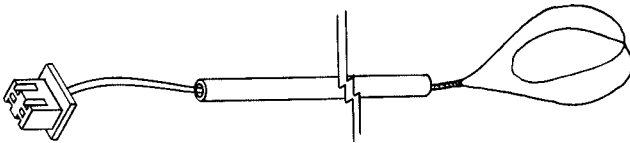
TRANSPONDER / PASSLOCK III: PATS, 'Smart Key', Secure-Lock, PASSLOCK III & other Transponder based systems

Note: For this type of security system - you must sacrifice one of the spare keys that comes with the car or obtain another key that has been coded to the vehicle and starts the engine successfully. This key will be used for the transponder. The dealership can program a spare key, but make sure they program all keys to the vehicle since learning just one transponder could erase all other key transponders (including the key used for the Bypass Module).

1. Remove the transponder from the key (there maybe a door on the top of the key that can be opened and the transponder can be removed). Or if possible, the entire key may be mounted inside the Bypass Module.
2. Pull apart the case and place the transponder, or the head of the key, inside the 10 wire loop on the circuit board. Transponders are directional and must be placed along the same direction that the key would lay. Use the double stick foam tape provided -- one layer on the circuit board and then the transponder, or key, and finally the second double-stick foam tape layer on top of it to hold key securly in place.



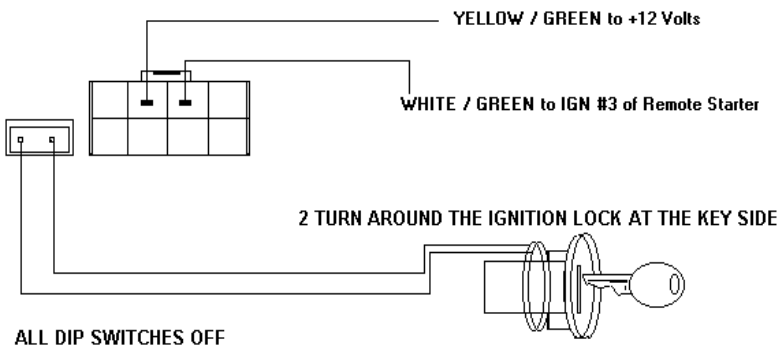
- The transponder LOOP goes underneath the steering column and up toward the ignition key cylinder and needs to be positioned so that there are 2 turns around the transponder antenna ring as shown below. **The transponder ring is usually a Black plastic ring that goes around the outside of the ignition lock cylinder near where the key is inserted. You will need to remove the plastic cover of the steering column in order to expose it. The transponder loops need to go around the outside diameter of this ring, not in front of it or behind it.** Secure the loop with electrical tape to tighten up the loops of wire and hold it in place. Plug the other end of the transponder loop into the Universal Alarm Bypass Module.



- Now start the vehicle with the remote starter. If the vehicle starts and runs for at least 30 seconds the transponder bypass is correct. Note: If the vehicle does not start with the remote starter, try adjusting or changing the position of the transponder in the Bypass Module or adjusting the position of the two loop wire around the transponder pick-up antenna mentioned above.:

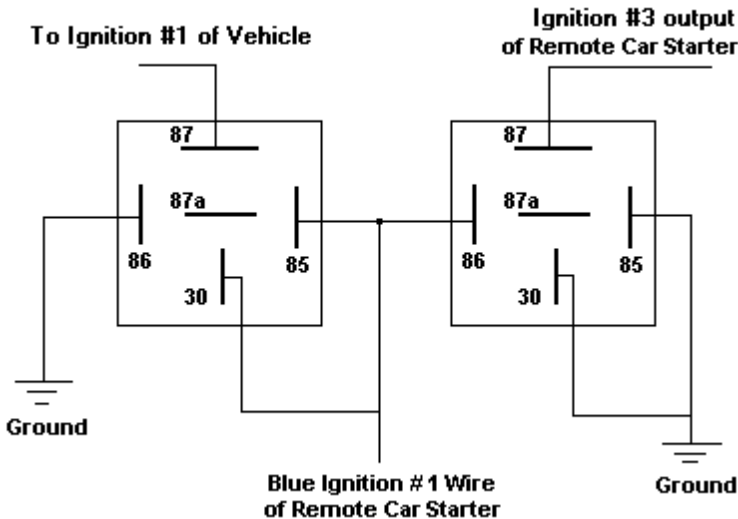
Note: The key that the transponder was removed from will no longer start the vehicle, but can be used to drive the vehicle after it has been started remotely.

TRANSPONDER



For Car Starters that do not have an Ign. 3 (Ground out while running) output:

You will need an **Ign. 3** output for all of the hookups shown on the following pages. Most models of car starters have this IGN3 output. If you have another brand of remote car starter -- or, if you have an car starter which does not have an IGN3 output -- follow the relay hook-up below using Bosch type 30 Amp relays for creating the Ign. 3 output.



Follow the specific hook-up for each type system .



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